

CLAIMS

1. A digital evidential camera system for detecting an alteration of image data obtained by photographing an object, comprising:

5 a camera including an image pickup unit for picking up an image of an object, and an encryption processing unit for generating an alteration detection data using a built-in encryption key from the image data picked up by the image pickup unit; and

10 an alteration detection unit for decrypting the alteration detection data generated by the encryption processing unit using a decryption key corresponding to the encryption key and detecting whether the image data has been altered based on the result of the decryption.

15 2. A digital evidential camera system according to claim 1,

wherein the encryption processing unit encrypts, using the encryption key, the data obtained by application of a predetermined function to the image data, thereby generating the alteration detection data.

20 3. A digital evidential camera system according to claim 2,

wherein the alteration detection unit compares the data obtained by application of the predetermined function to the image data with the data obtained by decrypting the alteration detection data using the decryption key thereby to detect whether the image data

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has been altered or not.

4. A digital evidential camera system according to claim 1,

5 wherein the encryption processing unit generates the alteration detection data based on the encryption key, the image data, and the data for identifying a photographer.

5. A digital evidential camera system according to claim 4,

10 wherein the encryption processing unit generates a first alteration detection data from the image data using the encryption key, generates a second alteration detection data from the image data using the data for identifying the photographer and combines the first and
15 second alteration detection data into the alteration detection data above mentioned.

6. A digital evidential camera system according to claim 4, comprising a storage unit for storing the data for identifying the photographer and the
20 encryption key and a second encryption processing unit for generating the second alteration detection data from the data for identifying the photographer,

wherein the second encryption processing unit is removably mounted on the camera.

25 7. A digital evidential camera system according to claim 4,

wherein the encryption processing unit generates

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the alteration detection data using the encryption key from a combination of the image data and the data for identifying the photographer.

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5 8. A digital evidential camera system for detecting the alteration of the image data obtained by photographing an object, comprising:

10 a camera including an image pickup unit for picking up an image of the object, and an encryption processing unit for generating the alteration detection data using a built-in encryption key from the image data obtained by the image pickup unit; and

15 an alteration detection unit for decrypting the alteration detection data generated in the encryption processing unit, using the decryption key corresponding to the encryption key, and detecting whether the image data has been altered based on the result of decryption;

20 wherein the camera, in addition to the alteration monitor mode for detecting whether the image data has been altered, has a secure mode for encrypting the image data transferred from the camera to the alteration detection unit, a digital watermark mode for embedding a digital watermark in the image data and
25 a normal mode for taking a photograph without the security function, the system further comprising a mode selection unit for selecting at least the desired one of the modes.

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unit;

an alteration detection unit for decrypting
a first alteration detection data attached to the
image data by use of a decryption key corresponding to
a first encryption key used for generating the
alteration detection data, and comparing the first
alteration detection data thus decrypted with the image
data thereby to detect the alteration of the image
data;

an image editing unit for processing the image
data using various functions and

an image file updating unit for generating second
alteration detection data using a second encryption key
other than the first encryption key from the edited
image data processed by the image editing unit and the
editing history data output by the image editing unit,
and adding the second alteration detection data to the
edited image data.

11. A digital image editing system according to
claim 10,

wherein the image file updating unit is removably
mounted on the digital image editing system, has stored
therein the information for user authentication
information and the second encryption key, and

wherein the second alteration detection data is
generated using the second encryption key and the
information for user authentication.

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15. A digital evidential camera system according to claim 10,

wherein the image data is multiple resolution
image data including a plurality of image data of
different resolutions combined and stored in different

sets, and

wherein the encryption processing unit includes
a selection unit for selecting at least an image
data having a desired resolution from the multiple
5 resolution image data in order to generate the
alteration detection data.

16. A digital evidential camera system according
to claim 1,

10 wherein the image data is multiple resolution
image data including a plurality of image data of
different resolutions combined and stored in different
sets,

wherein each of the multiple resolution image data
is stored in units of a predetermined small block, and

15 wherein the encryption processing unit generates
the alteration detection data in units of the small
block.

17. A digital evidential camera system according
to claim 10,

20 wherein the image data is multiple resolution
image data including a plurality of image data of
different resolutions combined and stored in different
sets,

25 wherein each of the multiple resolution image data
is stored in units of a predetermined small block, and

wherein the encryption processing unit generates
the alteration detection data in units of the small

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~~block.~~

~~18. A digital image editing system according to claim 10,~~

wherein part of the image file updating unit is
5 removably mounted on the digital image editing system,
has stored therein editor information and the second
encryption key, and

wherein the second alteration detection data is generated using the second encryption key based on the image data, and data obtained by applying a predetermined function from the editing history data output by the image editing unit.